Amendments to the Claims

1-3.   (Cancelled)

4.   (Previously presented) In an information handling system in which a physical machine contains one or more logical partitions, each of which is allocated a defined portion of machine resources and has one or more software applications executing therein, a method of enforcing capacity limitations comprising the steps of:

specifying a maximum allowed consumption of said resources by one of said one or more logical partitions;

measuring an actual consumption of said resources by said logical partition;

comparing said actual consumption with said maximum allowed consumption to determine whether said actual consumption exceeds said maximum allowed consumption; and

if said actual consumption exceeds said maximum allowed consumption, reducing said actual consumption of said resources to said maximum allowed consumption by reducing the defined portion of machine resources allocated to said logical partition while allowing all of the one or more software applications executing in said logical partition to continue executing.

5.   (Original) The method of claim 4 in which said logical partition is one of a group of logical partitions, said maximum allowed consumption being specified as a proportion of the resources available to said group of logical partitions.

6.   (Previously presented) The method of claim 4 in which said group of logical partitions comprises all of the logical partitions on said physical machine.

7.   (Original) The method of claim 5 in which each of the logical partitions in said group is assigned a weight, said proportion being defined as the ratio of the weight of said logical partition to the sum of the weights of the logical partitions in said group.

8.   (Previously presented) The method of claim 7 in which said logical partition is also assigned a phantom weight that is added to said sum of the weights of the logical partitions in said group but not to the weight of said logical partition in determining said ratio.

9.   (Original) The method of claim 4 in which said specified system resources are processor resources.

10.   (Original) The method of claim 4 in which said actual consumption is determined as an rolling average of said consumption over a predetermined time interval.

11.   (Currently amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform ~~the method steps of claim 1~~ a method of enforcing capacity limitations in an information handling system in which a physical machine contains one or more logical partitions, each of which is allocated a defined portion of machine resources and has one or more software applications executing therein, said method comprising the steps of:

        specifying a maximum allowed consumption of said resources by one of said one or more logical partitions;

        measuring an actual consumption of said resources by said logical partition;

        comparing said actual consumption with said maximum allowed consumption to determine whether said actual consumption exceeds said maximum allowed consumption; and

        if said actual consumption exceeds said maximum allowed consumption, reducing said actual consumption of said resources to said maximum allowed consumption by reducing the defined portion of machine resources allocated to said logical partition while allowing all of the one or more software applications executing in said logical partition to continue executing.

12.   (Previously presented) In an information handling system in which a physical machine contains one or more logical partitions, each of which is allocated a defined portion of machine resources and has one or more software applications executing therein, apparatus for enforcing capacity limitations comprising:

means for specifying a maximum allowed consumption of said resources by one of said one or more logical partitions;

means for measuring an actual consumption of said resources by said logical partition;

means for comparing said actual consumption with said maximum allowed consumption to determine whether said actual consumption exceeds said maximum allowed consumption; and

means for reducing said actual consumption of said resources to said maximum allowed consumption if said actual consumption exceeds said maximum allowed consumption by reducing the defined portion of machine resources allocated to said logical partition while allowing all of the one or more software applications executing in said logical partition to continue executing.

13.   (Original) The apparatus of claim 12 in which said logical partition is one of a group of logical partitions, said maximum allowed consumption being specified as a proportion of the resources available to said group of logical partitions.

14.   (Original) The apparatus of claim 13 in which each of the logical partitions in said group is assigned a weight, said proportion being defined as the ratio of the weight of said logical partition to the sum of the weights of the logical partitions in said group.

15.   (Original) The apparatus of claim 14 in which said logical partition is also assigned a phantom weight that is added to said sum of the weights of the logical partitions in said group in determining said ratio.

16.   (Previously presented) In an information handling system in which a physical machine contains one or more logical partitions, each of which is allocated a defined portion of machine resources, a method of enforcing capacity limitations comprising the steps of:

specifying a maximum capped consumption of said resources by one of said one or more logical partitions;

measuring an actual average consumption of said resources by said logical partition;

comparing said actual average consumption with a maximum average consumption greater than said maximum capped consumption to determine whether said actual average consumption exceeds said maximum average consumption; and

if said actual average consumption exceeds said maximum average consumption, reducing said actual average consumption of said resources to said maximum average consumption by alternatingly operating said logical partition in a capped mode in which said logical partition is limited to said maximum capped consumption and in an uncapped mode in which said logical partition is not limited to said maximum capped consumption.

17.   (Previously presented) The method of claim 16 in which said logical partition is one of a group of one or more logical partitions, said maximum capped consumption being specified as a proportion of the resources available to said group of logical partitions.

18.   (Previously presented) The method of claim 17 in which each of the logical partitions in said group is assigned a weight, said proportion being defined as the ratio of the weight of said logical partition to the sum of the weights of the logical partitions in said group.

19.   (Previously presented) The method of claim 18 in which said logical partition is also assigned a phantom weight that is added to said sum of the weights of the logical partitions in said group in determining said ratio.

20.   (Currently amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform the method steps of claim 16 a method of enforcing capacity limitations in an information handling system in which a physical machine contains one or more logical partitions, each of which is allocated a defined portion of machine resources, said method comprising the steps of:

specifying a maximum capped consumption of said resources by one of said one or more logical partitions;

measuring an actual average consumption of said resources by said logical partition;

comparing said actual average consumption with a maximum average consumption greater than said maximum capped consumption to determine whether said actual average consumption exceeds said maximum average consumption; and

if said actual average consumption exceeds said maximum average consumption, reducing said actual average consumption of said resources to said maximum average consumption by alternatingly operating said logical partition in a capped mode in which said logical partition is limited to said maximum capped consumption and in an uncapped mode in which said logical partition is not limited to said maximum capped consumption.

21.   (Previously presented) In an information handling system in which a physical machine contains one or more logical partitions, each of which is allocated a defined portion of machine resources, apparatus for enforcing capacity limitations comprising:

means for specifying a maximum capped consumption of said resources by one of said one or more logical partitions;

means for measuring an actual average consumption of said resources by said logical partition;

means for comparing said actual average consumption with a maximum average consumption greater than said maximum capped consumption to determine whether said actual average consumption exceeds said maximum average consumption; and

means for reducing said actual average consumption of said resources to said maximum average consumption if said actual average consumption exceeds said maximum average consumption by alternatingly operating said logical partition in a capped mode in which said logical partition is limited to said maximum capped consumption and in an uncapped mode in which said logical partition is not limited to said maximum capped consumption.

22.   (Previously presented) The apparatus of claim 21 in which said logical partition is one of a group of one or more logical partitions, said maximum capped consumption being specified as a proportion of the resources available to said group of logical partitions.

23.   (Previously presented) The apparatus of claim 22 in which each of the logical partitions in said group is assigned a weight, said proportion being defined as the ratio of the weight of said logical partition to the sum of the weights of the logical partitions in said group.

24.   (Previously presented) The apparatus of claim 23 in which said logical partition is also assigned a phantom weight that is added to said sum of the weights of the logical partitions in said group in determining said ratio.

25.   (Previously presented) In an information handling system in which a physical machine contains one or more logical partitions, each of which is allocated a defined portion of machine resources, a method of enforcing capacity limitations comprising the steps of:

specifying a maximum capped consumption of said resources by one of said one or more logical partitions, said logical partition being one of a group of one or more logical partitions, said maximum capped consumption being specified as a proportion of the resources available to said group of logical partitions, each of the logical partitions in said group being assigned a weight, said proportion being defined as the ratio of the weight of said logical partition to the sum of the weights of the logical partitions in said group, said logical partition also being assigned a phantom weight that is added to said sum of the weights of the logical partitions in said group but not to the weight of said logical partition in determining said ratio;

measuring an actual average consumption of said resources by said logical partition;

comparing said actual average consumption with a maximum average consumption to determine whether said actual consumption exceeds said maximum average consumption; and

if said actual average consumption exceeds said maximum average consumption, reducing said actual average consumption of said resources to said maximum average consumption by operating said logical partition at least part of the time in a capped mode in which said logical partition is limited to said maximum capped consumption.

26.   (Currently amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform the method steps of claim 25 a method of enforcing capacity limitations in an information handling system in which

a physical machine contains one or more logical partitions. each of which is allocated a defined portion of machine resources, said method comprising the steps of:

specifying a maximum capped consumption of said resources by one of said one or more logical partitions, said logical partition being one of a group of one or more logical partitions, said maximum capped consumption being specified as a proportion of the resources available to said group of logical partitions, each of the logical partitions in said group being assigned a weight, said proportion being defined as the ratio of the weight of said logical partition to the sum of the weights of the logical partitions in said group, said logical partition also being assigned a phantom weight that is added to said sum of the weights of the logical partitions in said group but not to the weight of said logical partition in determining said ratio;

measuring an actual average consumption of said resources by said logical partition;

comparing said actual average consumption with a maximum average consumption to determine whether said actual consumption exceeds said maximum average consumption; and

if said actual average consumption exceeds said maximum average consumption, reducing said actual average consumption of said resources to said maximum average consumption by operating said logical partition at least part of the time in a capped mode in which said logical partition is limited to said maximum capped consumption.

27. (Previously presented) In an information handling system in which a physical machine contains one or more logical partitions, each of which is allocated a defined portion of machine resources, apparatus for enforcing capacity limitations comprising:

means for specifying a maximum capped consumption of said resources by one of said one or more logical partitions, said logical partition being one of a group of one or more logical partitions, said maximum capped consumption being specified as a proportion of the resources available to said group of logical partitions, each of the logical partitions in said group being assigned a weight, said proportion being defined as the ratio of the weight of said logical partition to the sum of the weights of the logical partitions in said group, said logical partition also being assigned a phantom weight that is added to said sum of the weights of the logical partitions in said group but not to the weight of said logical partition in determining said ratio;

means for measuring an actual average consumption of said resources by said logical partition;

means comparing said actual average consumption with a maximum average consumption to determine whether said actual consumption exceeds said maximum average consumption; and

means for reducing said actual average consumption of said resources to said maximum average consumption if said actual average consumption exceeds said maximum average consumption by operating said logical partition at least part of the time in a capped mode in which said logical partition is limited to said maximum capped consumption.